

FIG. 2

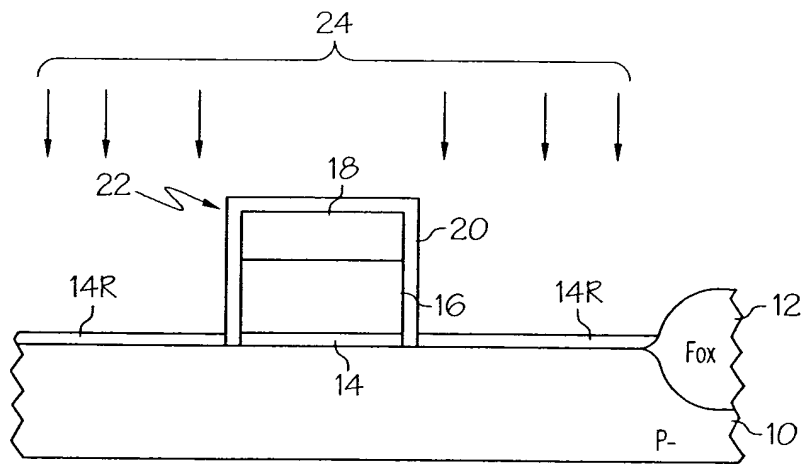


FIG. 3

A cross-sectional view of a semiconductor device. A central gate structure 34 is positioned on a substrate 10. The gate structure 34 includes a gate dielectric 18 and a gate electrode 20. The gate structure is flanked by side walls 32A and 32B. The substrate 10 is divided into regions 14 and 16. Regions 14 are labeled with 'N-' and are separated by a region 16. Regions 14 are further divided into sub-regions 26A and 26B. A region 14R is also indicated. The substrate 10 is labeled with 'P-' at the bottom. A region 12 is labeled 'Fox' and is located on the right side of the device. The substrate 10 is also labeled with '10' at the bottom right. The gate structure 34 is labeled with '34' at the top. The gate dielectric 18 is labeled with '18' and the gate electrode 20 is labeled with '20'. The side walls 32A and 32B are labeled with '32A' and '32B' respectively. The regions 14 and 16 are labeled with '14' and '16' respectively. The sub-regions 26A and 26B are labeled with '26A' and '26B' respectively. The region 14R is labeled with '14R'. The substrate 10 is labeled with 'P-' at the bottom. The region 12 is labeled 'Fox' and is located on the right side of the device. The substrate 10 is also labeled with '10' at the bottom right. The gate structure 34 is labeled with '34' at the top. The gate dielectric 18 is labeled with '18' and the gate electrode 20 is labeled with '20'. The side walls 32A and 32B are labeled with '32A' and '32B' respectively. The regions 14 and 16 are labeled with '14' and '16' respectively. The sub-regions 26A and 26B are labeled with '26A' and '26B' respectively. The region 14R is labeled with '14R'. The substrate 10 is labeled with 'P-' at the bottom. The region 12 is labeled 'Fox' and is located on the right side of the device. The substrate 10 is also labeled with '10' at the bottom right.

FIG. 5

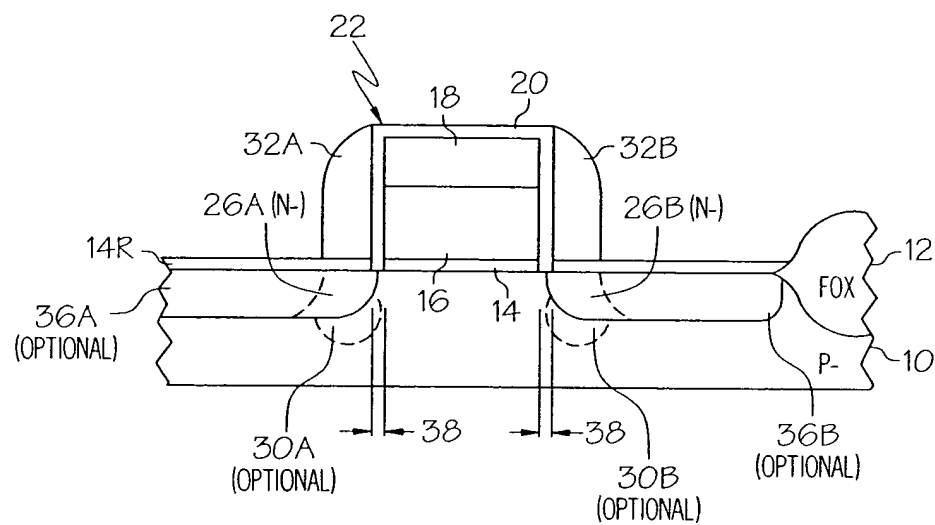


FIG. 6

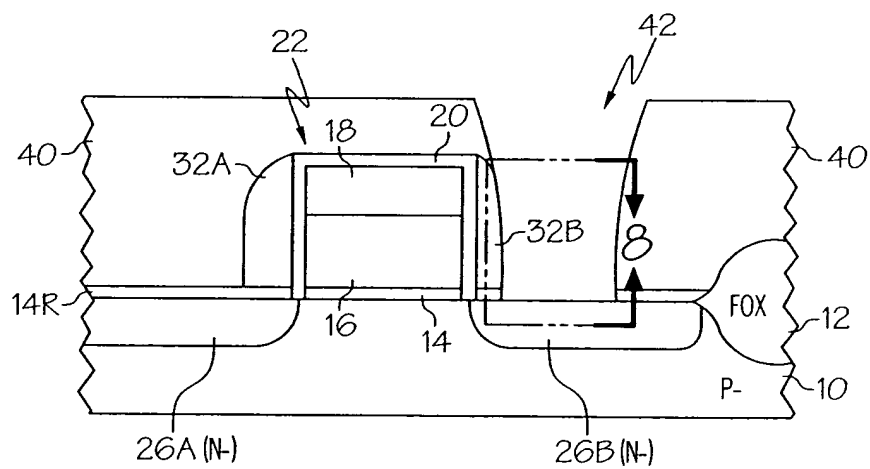


FIG. 7

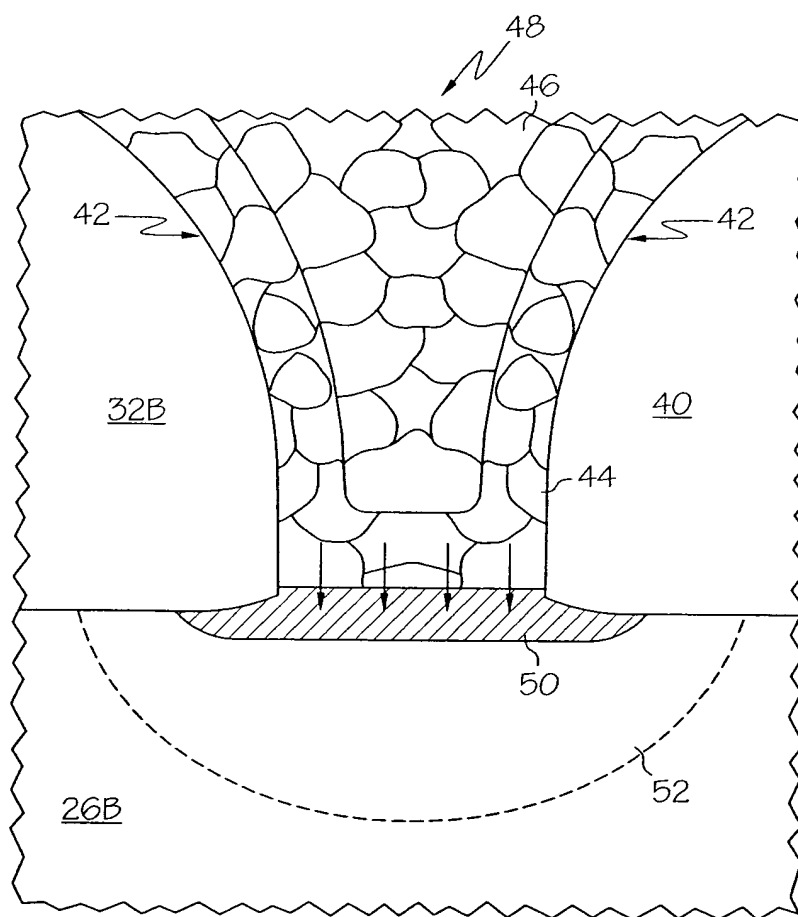


FIG. 8A

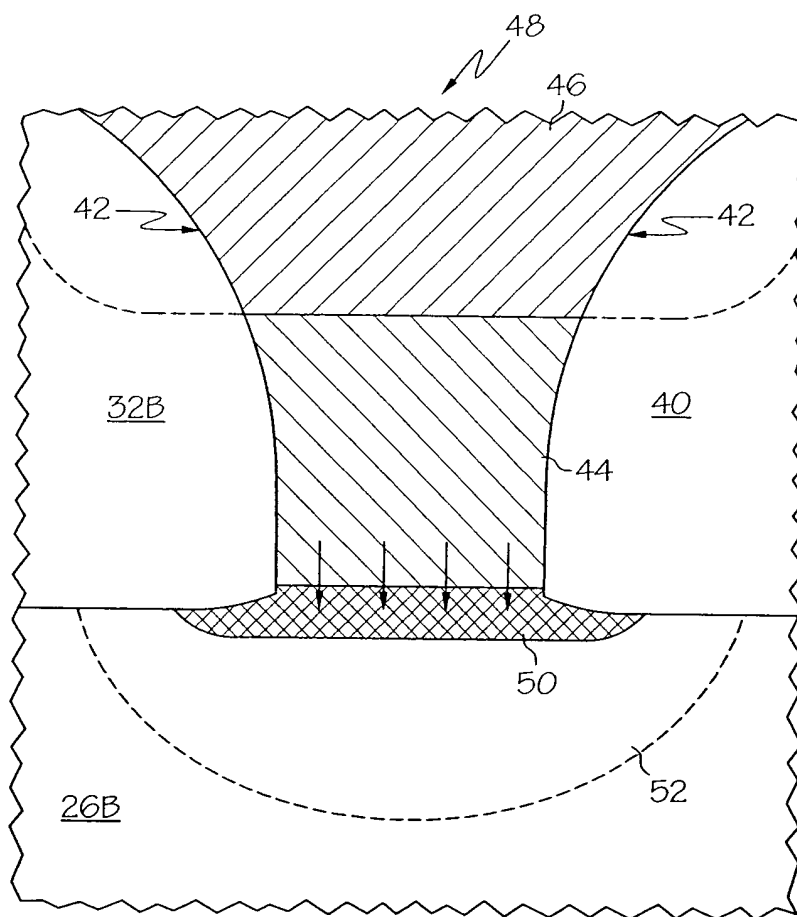
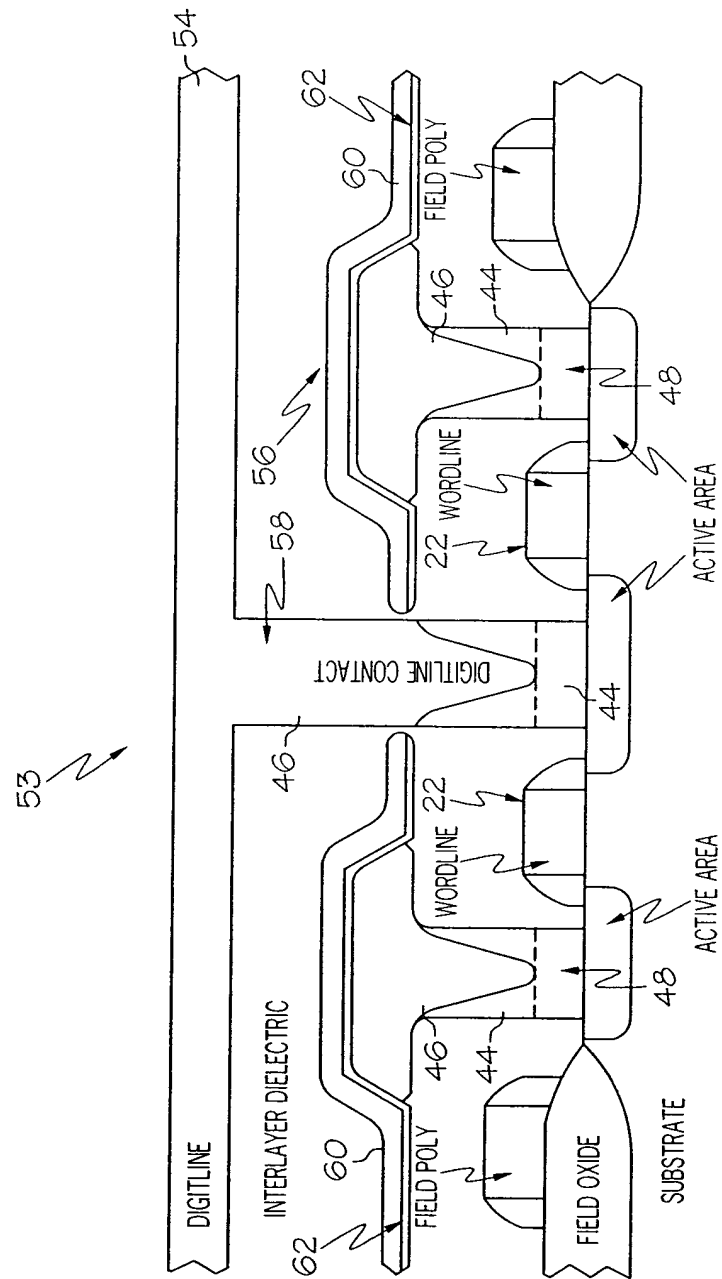


FIG. 8B



9
G.
F

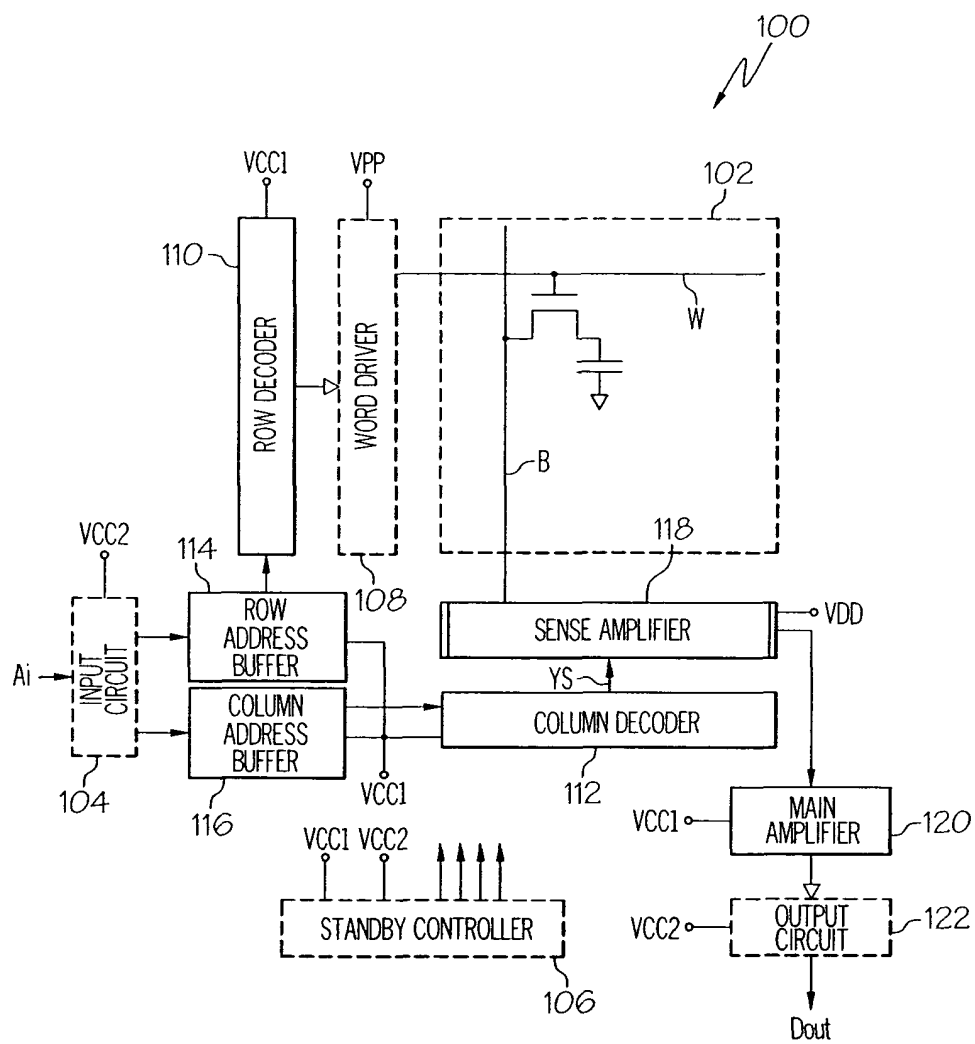


FIG. 11

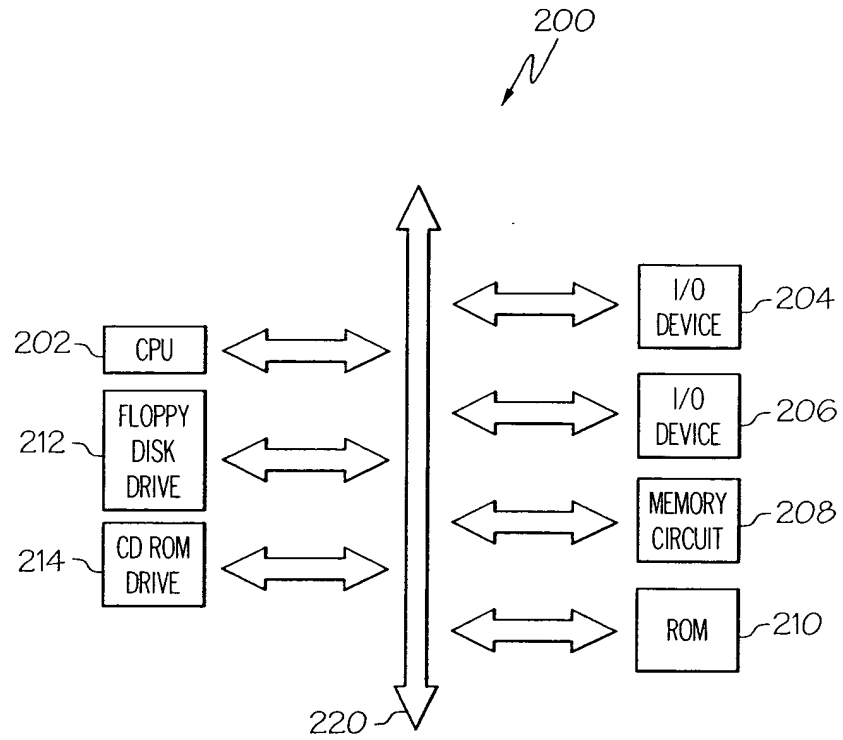


FIG. 12

I_{cell}/I_{sub} vs V_{cell} FOR $V_{wl}=1.5, 2.0, 2.5, 3.0$ (4 CONSECUTIVE SWEEPS), SWEEP V_{cell} 0-4.

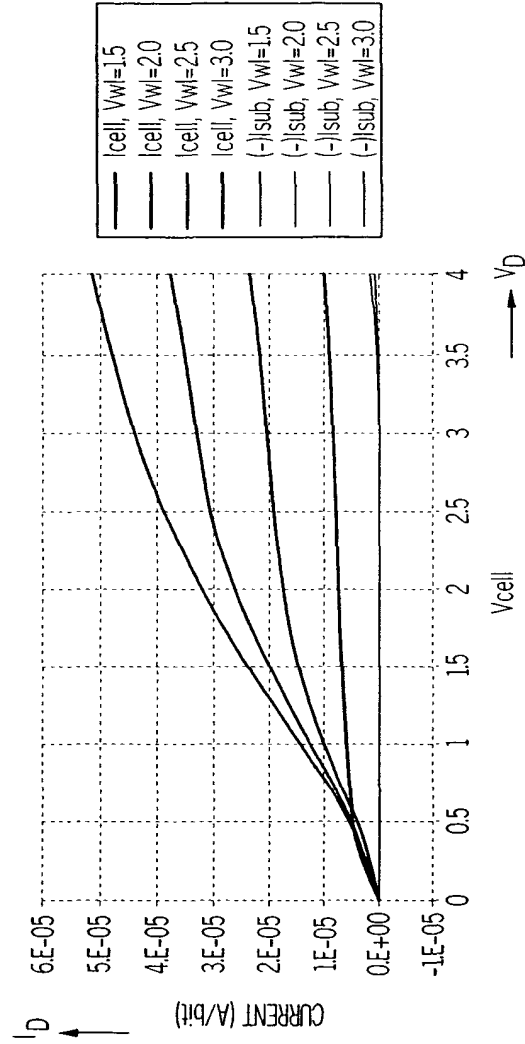


FIG. 13A

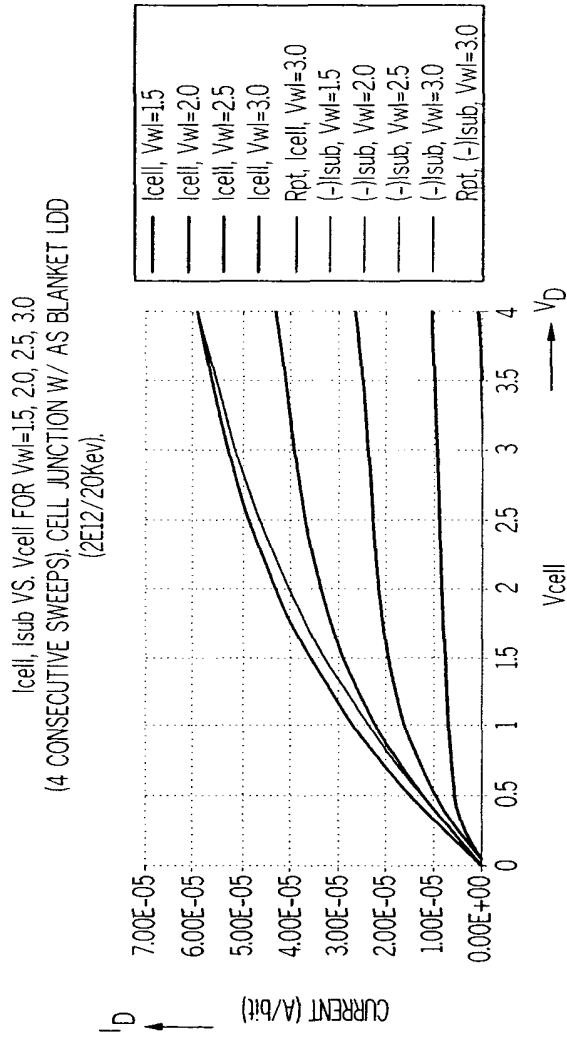


FIG. 13B